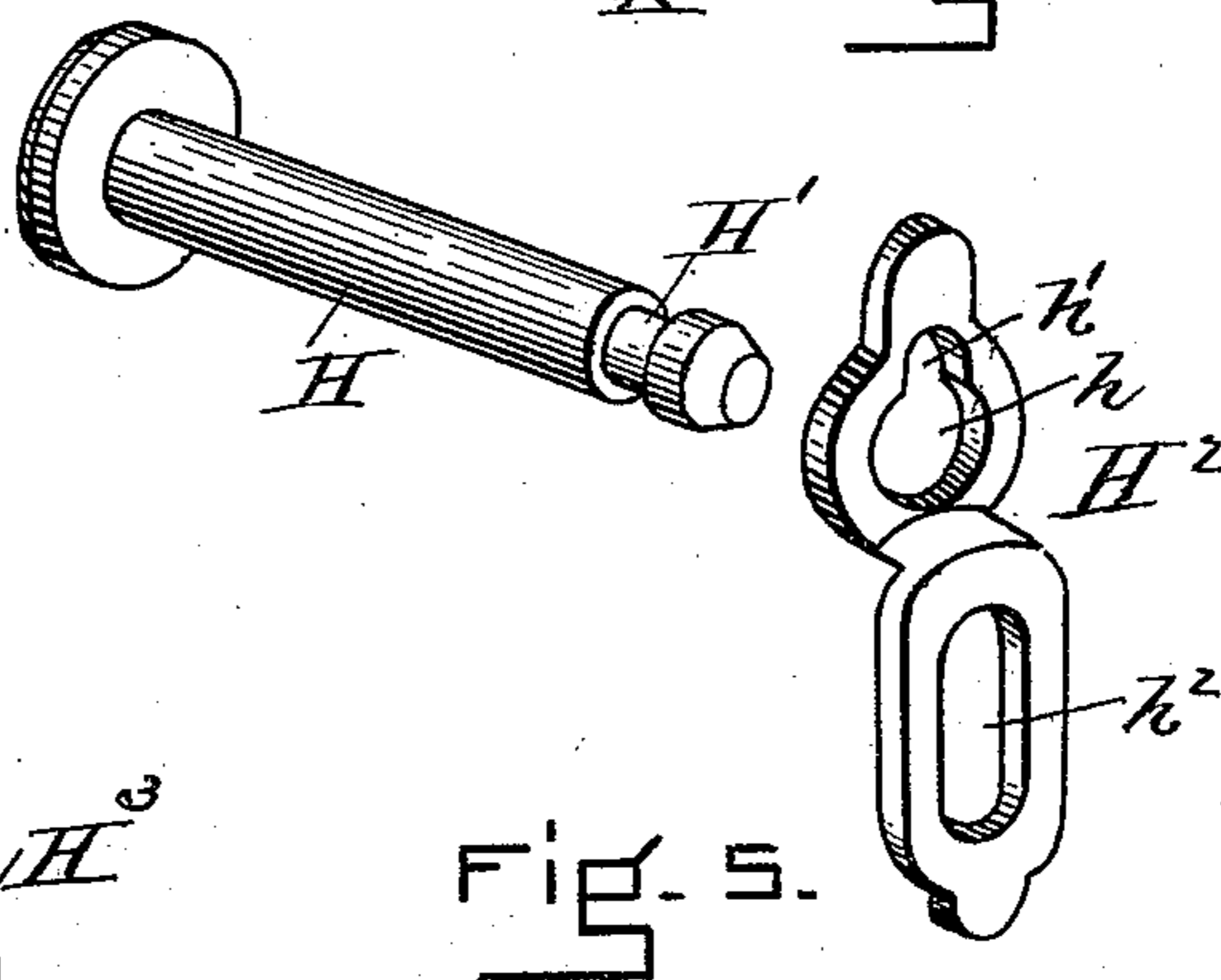
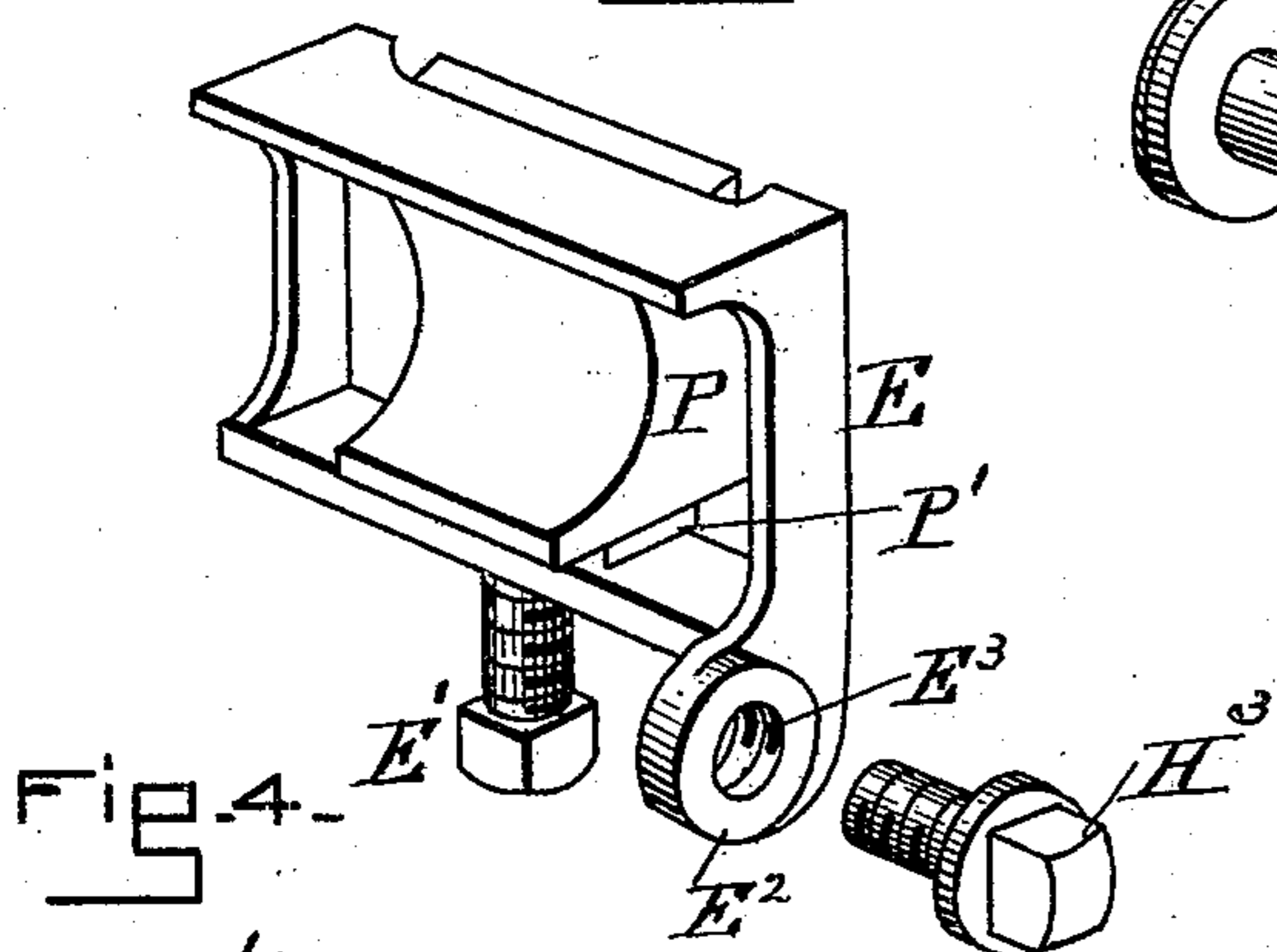
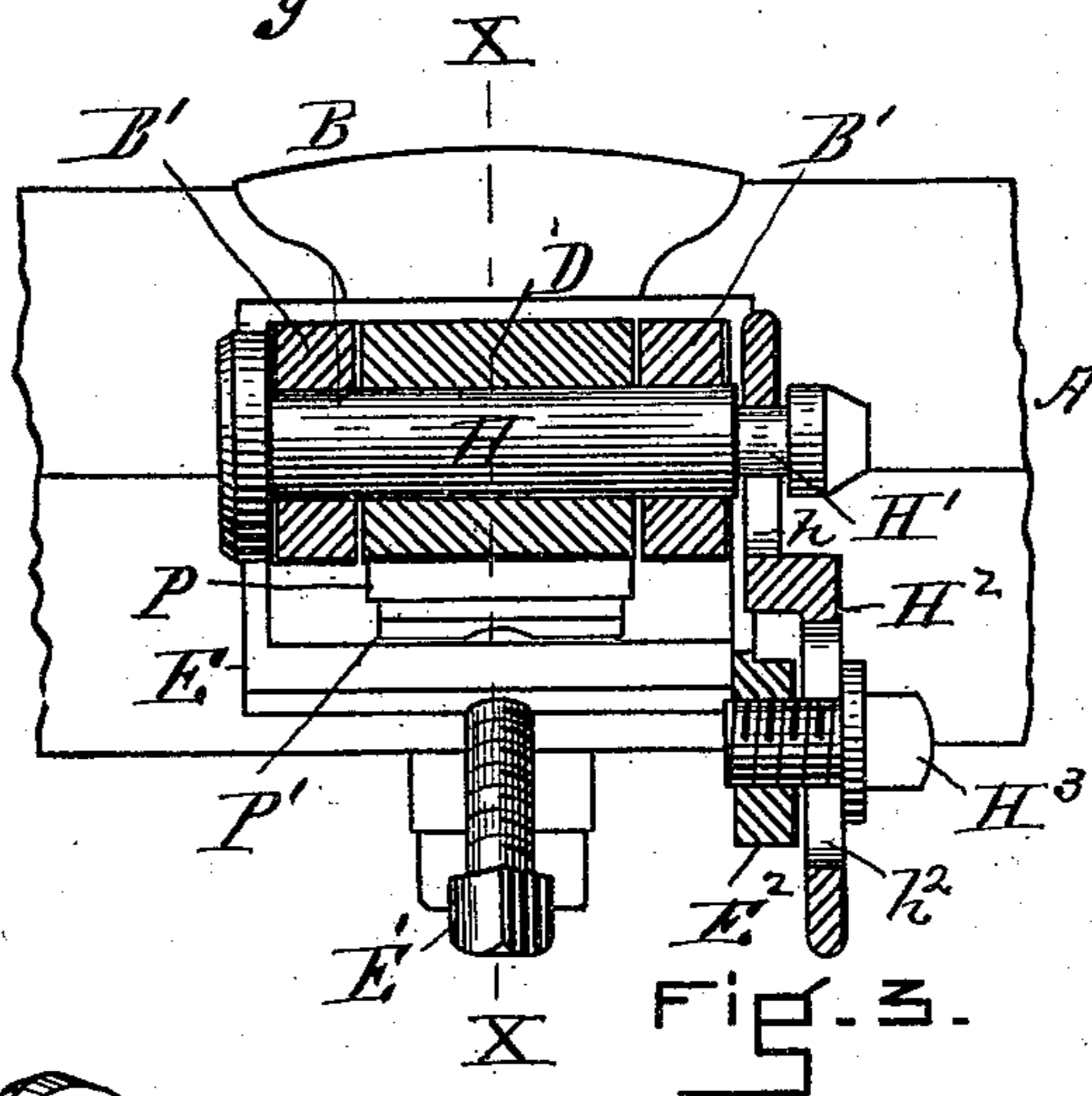
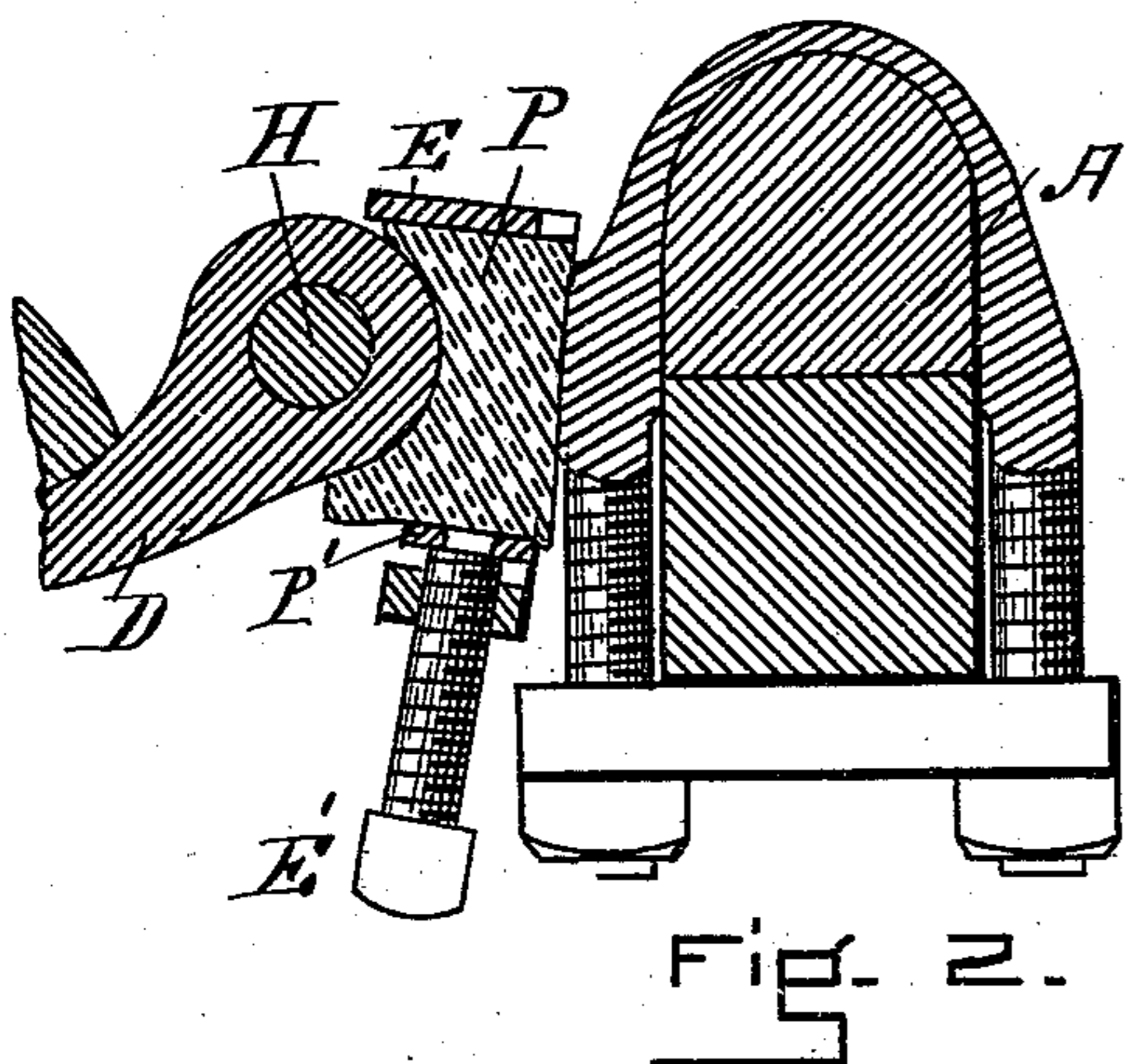
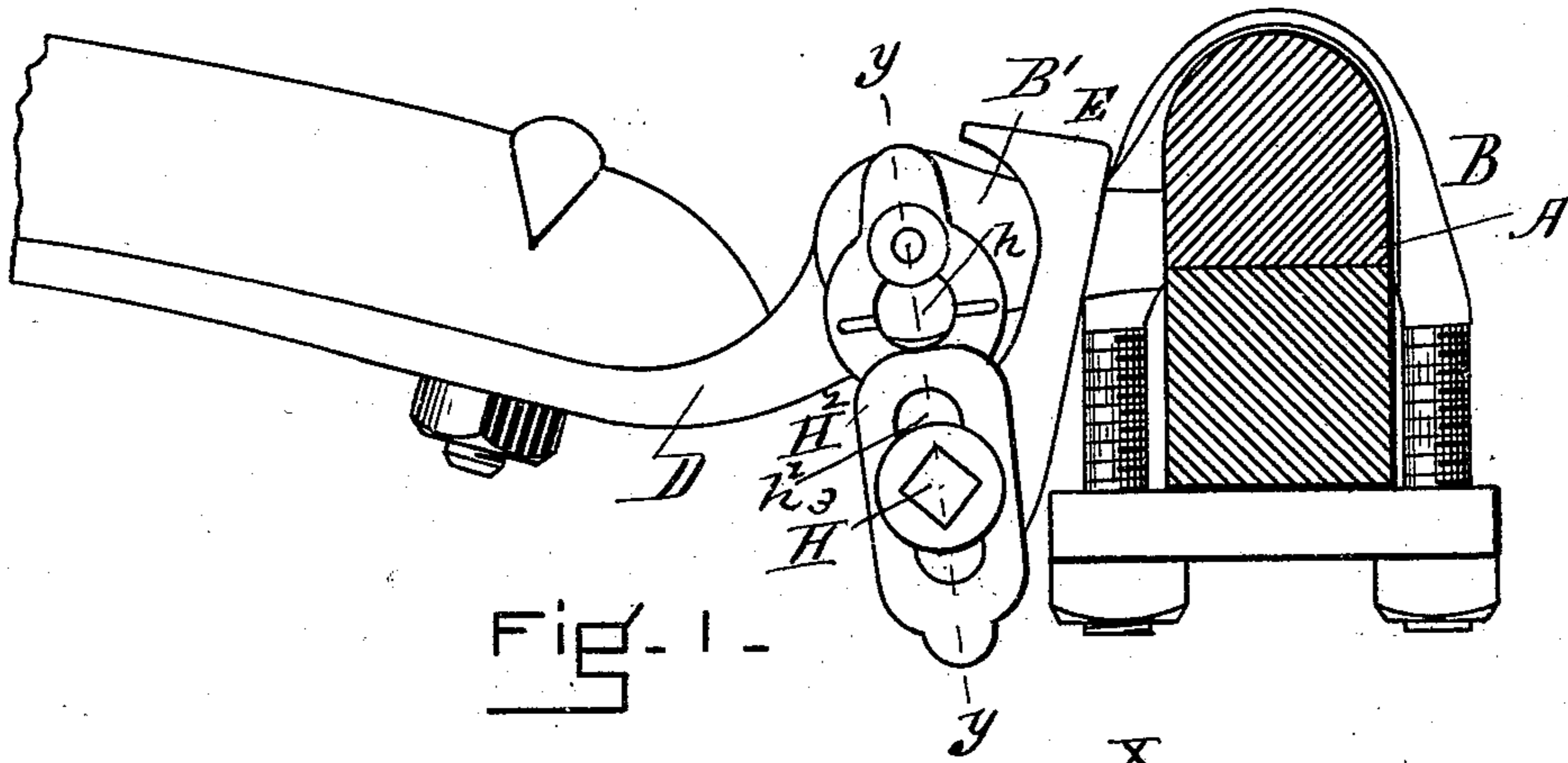


(No Model.)

J. E. WHIDDEN.
THILL COUPLING.

No. 543,166.

Patented July 23, 1895.



WITNESSES
Frank G. Parker.
Frank G. Hattie

INVENTOR
Joseph E. Whidden.

UNITED STATES PATENT OFFICE.

JOSEPH E. WHIDDEN, OF WHITMAN, MASSACHUSETTS.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 543,166, dated July 23, 1895.

Application filed September 27, 1893. Serial No. 486,605. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH E. WHIDDEN, of Whitman, in the county of Plymouth and State of Massachusetts, have invented a new and useful Improvement in Thill-Couplings, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to devices for preventing the parts that constitute a thill-coupling from rattling; and it consists in combining with the ordinary axle-clip, thill-iron, and pin an adjustable elastic pad, a pad-holder, and pin-lock.

The devices are illustrated in the accompanying drawings, in which—

Figure 1 is a view showing a carriage-axle in cross vertical section and the thill-coupling in elevation. Fig. 2 is a vertical section taken on line xx of Fig. 3. Fig. 3 is a section taken on line yy of Fig. 1. Fig. 4 is a view in perspective of one of my pad-holders, also showing a pad in position. Fig. 5 shows a thill-coupling pin and its locking-hasps.

In the drawings, A represents a carriage-axle, B B' a thill-coupling clip, and D a thill-iron.

The above-mentioned parts are made in the usual manner and need not be described in detail.

The thill-iron D is attached to the lags B' B' of the clip by means of a pin H, as shown. This pin H is made in the usual manner, except that it has at its end an annular groove H', Figs. 3 and 5, which serves, in connection with the hasp H², to hold the pin H in place, as will be explained hereinafter.

The leading feature of my invention is in connection with the pad-holder E. (Shown in perspective in Fig. 4.) This pad-holder E is so made that it can be easily fitted over the lags B' B' of the axle-clip B, where it will be held by the pin H, which occupies a position in front of it, as shown in Fig. 1. It is also held by the elastic pad P when the same is expanded sidewise by the pressure of the compression-screw E'. The pad P when in place is held at its top by the top plate of the holder E and at either end by the lags B' B', Fig. 3,

while its lower side rests upon the buttress-plate P' of the compression-screw E'. The rear side of the pad rests against the clip B, as shown in Fig. 2, and the concaved front side rests against the rear end of the thill-iron D.

To cause the pad P, which is made of rubber or some other elastic material, to firmly press against the end of the thill-iron and prevent it from rattling, I have only to turn the screw E' inward. This, acting through the buttress-plate P', will compress the pad P vertically and cause it to expand laterally—that is, press hard against the end of the thill-iron.

The hasp H², Figs. 1 and 5, is made with an opening $h h'$. The part h of the opening is made sufficiently large to slip readily over the end of the pin H; but the part h' is made small, so as to fit into the annular groove H' on the pin H. The lower end of the hasp H² has an elongated opening h^2 , which receives the screw H³, by which it may be made fast to the extension E² of the pad-holder E, the screw H³ engaging with the screw-threaded hole E³ in the extension E².

To apply my devices, I remove the thills and then place the pad-holder, including the pad, in its place on the lags B' B'. Now replace the thills and insert the pins H, placing the hasp H² so that the opening h' will fit the annular groove H' and hold the pin H in place, and then insert the clamp-screw H³ and screw it firmly in place. This will hold the hasp, which in turn will keep the pin H in place.

While placing the devices the compressing-screw E' is turned out—that is, the rubber pad P is not compressed—but as soon as the act of placing is done the screw E' is screwed in. This action expands the pad P laterally and holds the thill-iron so that it cannot rattle. At the same time the pad-holder will be forced downward to some extent, and thus bring a tension onto the hasp H² and the pin H—that is, by tightening up the compression-screw E' all of the parts will be brought together and held in yielding non-rattling bearing.

I claim—

In a carriage thill coupling, the combina-

tion of the pad P and pad holding frame E,
having an extension E² adapted to receive the
clamp screw H³; with the clamp screw H³ hasp
H² and pin H having an annular groove H'
5 adapted to interlock with the said hasp H²
substantially as and for the purpose set forth.
In testimony whereof I have signed my

name to this specification, in the presence of
two subscribing witnesses, on this 25th day of
September, A. D. 1893.

JOSEPH E. WHIDDEN.

Witnesses:

FRANK G. PARKER,
FRANK G. HATTIE.